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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,534	07/29/2003	Riad Ghabra	LC 0136 PUS	1533

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ARTZ & ARTZ, P.C.
28333 TELEGRAPH ROAD, SUITE 250
SOUTHFIELD, MI 48034

EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/604,534	Applicant(s) GHABRA ET AL.	
	Examiner Michael Rutland-Wallis	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the axis of rotation which Applicant claims in claim 1 and 14 must be shown and clearly numbered or identified or the feature canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

Applicant's amendments to the drawings and specification have been entered.

In response to the claim objection to claim 3 where the limitation "said key actuated device is a key" was cited as unclear. In effort to resolve the cited issue Applicant point out the key is not actuated by a key. In view of Applicant's amendments and arguments the previous objections are hereby withdrawn.

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments filed 08/23/2006 with respect to claim 15-20 have been fully considered but they are not persuasive.

Applicant alleges in the remarks of page 7 of the response "the sensor switch of Janssen does no generate a magnetic field". The sensor switch (30) of Janssen refers the switch mechanism formed by switch member (31) and magnets (26) and (36). Therefore at least magnet 36 generates a field, which is altered when the key actuated device is rotated to align with the switch sensor. Therefore Janssen teaches all the claimed limitation of claim 15; hence the rejection to claim 15 is proper and therefore maintained.

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Applicants allege the combination of Janssen and Kito is improper because Kito is unrelated or irrelevant. The Office contends Janssen and Kito are related as they both teach vehicle ignition lock and key systems to protect vehicles from theft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 9-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich et al. (U.S. Pat. No. 5,862,691) in view of Janssen (U.S. Pat. No. 6,958,551)

With respect to claims 1 and 11 Friedrich teaches an active keyed locking system for a vehicle comprising: a field altering device (item 1 permanent magnet) a keyed actuated device (item 4 cylinder) coupled to said field altering device; a non-mechanically operated position sensor (item 2 and 3) located proximate to is said keyed actuated device and generating a position signal indicative (i.e. rotated to start position or rotated to off position) of position of said keyed actuated device in response to detected change in a magnetic field (see Figs 3-5) due to rotation of said field altering device about an axis (axis G) extending through said altering device. Friedrich teaches the connection of an electrical switch item 9 coupled to electronic lock system for controlling sensor switches locks and actuators, see col. 2 lines 55-65. Friedrich does

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not disclose the detailed connection of a controller as claimed. Janssen teaches a controller (control module seen best in Fig. 7 and 9) electrically coupled to said position sensor and enabling at least one vehicle component (ignition) in response to said position signal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Friedrich to include a controller in order to enable a vehicle component, in fact such a controller is not already present in Friedrich.

With respect to claim 2 Friedrich teaches the keyed actuated device is a lock assembly.

With respect to claim 3 Friedrich teaches the keyed actuated device is a key.

With respect to claim 5 and 6 Friedrich teaches the key comprises a permanent magnet, when rotated alters the field.

With respect to claim 9 Friedrich teaches the position sensor is a Hall effect sensor.

With respect to claim 10 Friedrich does teach the inclusion of a base station. Janssen teaches the position sensor is coupled within a base station (see Fig. 1).

Claims 4, 7-8, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich et al. (U.S. Pat. No. 5,862,691) in view of Janssen (U.S. Pat. No. 6,958,551) in further view of Kimura et al. (U.S. Pat. No. 5,117,097)

With respect to claims 7-8 and 12 Friedrich teaches switch item 9 and mechanical latch component but does not give details of the key. Kimura teaches a key system for a vehicle where in the key comprises inductance and capacitance resonance circuitry has intrinsic resonance points as key information (abstract) and operating the

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securing or enabling of a vehicle accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to include such circuitry in the device of Friedrich as modified by Janssen in order to increase the security of the vehicle.

With respect to claims 4 and 13 Friedrich teaches the keyed actuated device is a lock assembly. Friedrich does not teach the assembly comprising a key antenna (formed with item 44). Kimura teaches the use of an antenna formed by the resonant LC circuit (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of an antenna to transmit key information to the controller in the vehicle.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (U.S. Pat. No. 5,117,097) in view of Friedrich et al. (U.S. Pat. No. 5,862,691) in further view of Janssen (U.S. Pat. No. 6,958,551) Kimura teaches an ignition enabling system for a vehicle comprising: a key (item 40) having a transponder (formed with item 44); a lock assembly (see Fig. 2 or 4). Kimura teaches magnetically coupled keyed communication in col. 1 lines 65 – col. 2 lines 10 is known to detect changes in flux as key position is changed. Kimura does not teach the sensing the change in actuation of a transponder about an axis, which extends through said transponder. Friedrich teaches a position sensor (item 2 and 3) located proximate to a keyed actuated device and generating a position signal indicative (i.e. rotated to start position or rotated to off position) of position of said keyed actuated device in response to detected change in a magnetic field (see Figs 3-5) due to rotation of said field altering device about an axis (axis G) extending through said altering device. While neither Kimura nor Friedrich

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teach a controller, one of ordinary skill in the art would understand necessary control circuitry would be required to affect the function of controlling enabling vehicle components. Janssen teaches a controller (control module seen best in Fig. 7 and 9) electrically coupled to said position sensor and enabling at least one vehicle component (ignition) in response to said position signal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Friedrich to include position sensing position circuit and controller in order to securely control vehicle components and decrease vehicle theft.

Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janssen (U.S. Pat. No. 6,958,551)

With respect to claim 15 Janssen teaches an active keyed locking system for a vehicle comprising: a magnetic field altering device (item 26) a keyed actuated device (item 13 cylinder) coupled to said field altering device; a non-mechanically operated position sensor (item 30 magnetic sensor) located proximate to is said keyed actuated device and generating a position signal indicative (i.e. rotated to start position or rotated to off position) of position of said keyed actuated device in response to detected change in a magnetic field due to stationary rotation (stationary rotation of lock cylinder item 13 coupled to field altering device item 26) of said field altering device; and a controller (control module seen best in Fig. 7 and 9) electrically coupled to said position sensor and enabling at least one vehicle component (ignition) in response to said position signal.

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janssen (U.S. Pat. No. 6,958,551) in view of Kokubu et al. (U.S. Pat. No. 5,745,026)

With respect to claim 16 Janssen teaches a recognition device (keyway) to mechanically recognize the ignition key however Janssen recognition device is understood to be mechanical in nature it does not generate a signal. Kokubu teaches a recognition device (Fig. 1 item 21) recognizing a key and generating a recognition signal wherein said controller enables the active keyed locking system in response to said recognition signal (column 3 line 66- column 4 line 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Janssen to include the key with recognition signal seen in Kokubu in order to increase the security by increase the complexity of the ignition key.

With respect to claim 17 Kokubu teaches activating a base station (Fig. 4 shows the position indicator to be coupled within the steering column and further coupled to the cam shaft see column 6 lines 1-25) in response to said key recognition.

With respect to claim 18 Kokubu teaches generating a first authorization signal; generating a second authorization signal in response to said first authorization signal; verifying said second authorization signal (column 3 line 66- column 4 line 40); and generating said position signal in response to said verification (column 5 lines 25-43).

With respect to claim 19 Kokubu teaches determining position of said keyed actuated device comprises: generating at least one base signal (code ΔB column 4 line 17-26); altering (code ΔC column 4 line 17-26) said at least one base signal via

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actuation of said keyed actuated device; and generating (code ΔD column 4 line 17-26) said position signal in response to said alteration of said at least one base signal.

With respect to claim 20 Kokubu teaches at least one base signal is modulated (Fig 2 item 5) using a modulation technique selected from at least one of amplitude modulation (column 4 lines 27-37), frequency modulation, and phase modulation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-

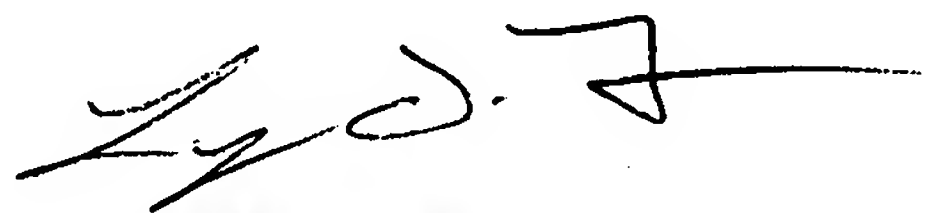
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272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

A handwritten signature in black ink, appearing to read 'Lynn Feild', with a stylized flourish extending to the right.

LYNN FEILD
SUPERVISORY PATENT EXAMINER